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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/650,464   | 08/28/2003  | Shawn P. Keeney      | WHLK/043            | 7110             |
| 26291  | 7590        | 12/20/2004           | EXAMINER            |                  |
| MOSER, PATTERSON & SHERIDAN L.L.P.<br>595 SHREWSBURY AVE, STE 100<br>FIRST FLOOR<br>SHREWSBURY, NJ 07702 |             |                      | TANG, SON M         |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 2632                |                  |

DATE MAILED: 12/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/650,464

Applicant(s)

KEENEY ET AL.

Examiner

Son M Tang

Art Unit

2632

*[Handwritten signature]*

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4-5, 7-9, 11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bechtel [US 5,896,092] in view of Schmedding et al. [US 6,532,406].

Regarding to claim 1: Bechtel teaches an alarm unit, comprising:

-a flashing circuit having a flashtube for generating a flash; and an integrated circuit U1 coupled to said flash circuit, for triggering said flash [as shown in Fig. 7, col. 11, lines 45-50 and col. 12, lines 58-67 to col. 13, lines 1-12], except for not specifically stating that an IC is an application specific integrated circuit (ASIC). (ASIC) is a known component in electrical art which use for triggering safety-relevant functions (devices), as suggested by Schmedding et al. [cited in col. 1, lines 27-35]. Therefore, it would have been obvious of one having ordinary skill in the art at the time of the claimed invention to use an (ASIC) as suggested by Schmedding et al. into the alarm device of Bechtel, for the benefit of enhancing more functions to the flash circuit, since (ASIC) can be able to process certain program for a specific device.

Regarding to claims 4-5: Bechtel and Schmedding et al. made of obvious above, -----  
Bechtel further discloses a current limiting circuit (R1, Q3, R17 and Q5) coupled to the integrated circuit U1, for constantly senses and limiting an input current level [as cited in Fig. 7, col. 12, lines 15-20, 57-67].

Art Unit: 2632

Regarding to claims 7-9: Bechtel and Schmedding et al. made of obvious in claim 1 above, they are not specific that the ASIC is an 18-pin, 16-pin or 8-pin package. It would have been an obvious matter of design choice to use either package in the system, since applicant has not disclosed that certain package solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with any package.

Regarding to claim 11: Bechtel and Schmedding et al. made of obvious in claim 1 above, they are not specify that the ASIC provides a charge cycle that is greater than 8 Khz. However, as long as the flash circuit is being generated and the flashtube is being flashed, employing any number for performing the same function would not constitute an inventive step but an obvious of design choice. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention to employ any known frequency range, such as greater than 8 Khz., in the above combination for charging the flashtube as desired.

Regarding to claim 15: Bechtel and Schmedding et al. made of obvious in claim 1 above, Bechtel further discloses that transistor drive Q5 capability of greater than 7.3 volts [see col. 13, lines 5-8].

3. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bechtel [US 5,896,092] in view of Schmedding et al. [US 6,532,406], and further in view of Ko et al. [US 6,307,328].

----- Regarding to claims 2-3: Bechtel and Schmedding et al. made of obvious above, they are not specify that, a switch coupled to the ASIC which having a plurality of selectable positions representative of flash intensity. Ko et al. teach a flashlight which comprises a switch

Art Unit: 2632

13 for selecting the intensity of light of the lamp [col. 2, lines 35-48], however, the plurality of selectable positions are programmed in memory of microprocessor 31, therefore, it would have been obvious that instead of mechanical switches Ko et al. use electrical switches, so user can have choice of the intensity of the flashlight.

4. Claims 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bechtel in view of Schmedding et al. and further in view of Kataoka [US 4,625,151].

Regarding to claim 6: Bechtel and Schmedding et al. made of obvious above, they are not specific suggesting a DC to DC converter in the system, Kataoka teaches a flash device which comprising a DC to DC converter (3) coupled to an IC circuit [as shown in Fig. 1, col. 2, lines 20-25]. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention to employ a DC to DC converter as suggested by Kataoka, into the system of combination above, for the purpose of regulating and stabilizing the voltage to the IC, since flash tube would use more power at a time for flashing, and after a flash the voltage drop to minimum.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bechtel in view of Schmedding et al. and further in view of Hata [US 6,091,898].

Regarding to claim 10: Bechtel and Schmedding made of obvious in claim 1 above, they are not specifically teaching that the flash circuit comprises a voltage doubler. It is known in the art that, voltage doubler is use for boosting voltage of flash circuit, Hata teaches a flash circuit 37 which comprises a voltage doubler 85, [as shown in Fig. 4, col. 14, lines 43-48, col. 15, lines 10-15]. It would have been obvious of one having ordinary skill in the art at the

Art Unit: 2632

time of the claimed invention to use, the voltage doubler as suggested by Hata, into the system of combination above, so the voltage in the flash circuit would be boosted when it needed.

6. Claim 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bechtel in view of Schmedding et al. and further in view of Chen [US 5,595,075].

Regarding to claims 12-14: Bechtel and Schmedding made of obvious in claims 1 and 11 above, they are not specify that the ASIC selects an audio frequency for said audio warning signal, as Schmedding stated that ASIC is known for processing the special software necessary for the devices, thus, the device can be a smoke alarm which has a combination of audible and visual alarm, since both flash and audio are alarm they can be selected and programmed the output frequency in an IC in the similarly fashion, Chen teaches an audio alarm system [Fig. 6] having a detection circuit (63) an audio warning circuit, which generating audio signal similar to flash circuit. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention to have audio warning signal as suggested by Chen, in combination with flashing alarm, for the purpose of can be used at any environment.

7. Claim 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen [US 5,595,075] in view of Schmedding et al. [US 6,532,406].

Regarding to claim 16: Chen discloses an alarm unit, comprising:

-----  
-an audio circuit for generating an audio warning signal [Fig. 6], except for not specifically stating that an IC is an application specific integrated circuit (ASIC). (ASIC) is a know component in electrical art which use for triggering safety-relevant functions (devices), as

Art Unit: 2632

suggested by Schmedding et al. [cited in col. 1, lines 27-35]. Therefore, it would have been obvious of one having ordinary skill in the art at the time of the claimed invention to use an (ASIC) as suggested by Schmedding et al. into the alarm device of Bechtel, for the benefit of enhancing more functions to the flash circuit, since (ASIC) can be able to process certain program for a specific device.

Regarding to claim 17: Refer to consideration of claim 13 above.

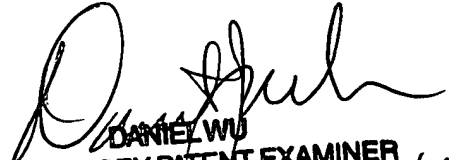
### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son M Tang whose telephone number is (571)272-2962. The examiner can normally be reached on 4/9 First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J Wu can be reached on (571)272-2964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Son Tang

  
DANIEL WU  
SUPERVISORY PATENT EXAMINER  
12/13/04